

for the rapid development and implementation of tuberculosis and HIV preventive interventions targeted to these men. □

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Needle Exchange Programs: New Zealand's Experience

In his annotation "Needle Exchange Programs—Do They Work?," Coutinho tested the "efficacy" thesis and found it wanting; he wrote that an Amsterdam study "yielded no evidence overall that the syringe exchange program was protective [in the case of the human immunodeficiency virus—HIV—and other diseases]." ^{1(p1491)} Contrary to Coutinho's equivocal conclusion about the efficacy of needle exchange programs in Amsterdam

and one in Tacoma, Wash, my assessment is that needle exchange programs work if there is sufficient conceptual clarity and political will.

A compelling example is New Zealand, where a nationwide needle exchange program was implemented in 1988. New Zealand's rate of HIV seropositivity among injection drug users is low; a national study found that 3 of the 393 (0.8%) men and none of the 190 women using the needle and syringe exchange scheme in New Zealand were infected.² The researchers for this sentinel study did not rely on self-report procedures. Rather, they tested saliva samples obtained from each exchange site.³ In addition to negligible rates among individuals who anonymously volunteered saliva samples for testing at exchange sites, official health statistics indicate low infection rates among a broader population of injection drug users. Twelve injection drug users have been diagnosed with the acquired immunodeficiency syndrome (AIDS) since 1987.^{4,5} HIV seropositivity for injection drug users has been listed at around four to six cases a year since the first case was notified in 1987.

The figures do not suggest a decline in the protective qualities of needle exchange programs, as suggested by Coutinho.¹ Rather, the data indicate that needle and syringe exchange programs work when (1) there is active government and intersectoral support for such programs; (2) coverage is extensive; (3) nonjudgmental services and referrals are offered by peers; (4) there is a holistic approach to disease prevention; and (5) police activity around needle exchange sites is kept to a minimum.

These data also suggest that needle exchange has become a harm-reduction "habit" for many of New Zealand's injection drug users. Coutinho wrote that the Amsterdam program was "introduced without any political interference and discussion, probably because it fitted well within Amsterdam's public health-oriented drug policy and the concept of harm reduction."^{1(p1490)} New Zealand's response to HIV in general was enacted after public and parliamentary debate, but needle exchange was similarly aligned to harm-reduction (known locally as "health promotion") policies. Evaluations of needle exchange have not been sought, undertaken, or proposed. The public has not expressed concern about the effects of needle exchange, nor have politicians, moralists, or antidrug campaigners raised objections in any significant way since the

issue was first raised in 1986. Media coverage of injection drug use is rare; more attention is given to the existence of juvenile glue-sniffers and marijuana users. In the absence of the familiar US "war against drugs" rhetoric, the program is judged to work because it provides injection drug users with the means (and encouragement) to keep disease at bay. □

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The Important Contribution of Community Mental Health Workers

In their recent commentary, Witmer et al. called attention to the role and usefulness of the community mental health worker in a health care system.¹ The extensive bibliography dating to 1970 lists one reference to mental health.² In 1972, the Journal published an article³ describing the roles and advantages of using community workers in mental health that are very similar to those proposed by Witmer. In the early 1960s, the National Institute of Mental Health funded a training program for nonprofessional workers (counselors).⁴

The community mental health profession of the past 25 years has had much experience with using community workers and can contribute to promoting their use. Also, this letter may serve as a reminder that mental health is an integral part of

the health system and should be included whenever a health system is being considered. □

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Current Research on Chronic Pain and Suicide

In a recent Journal article, Penttinen reported on an unexpected association between back pain and suicidal tendency in Finnish farmers.¹ This study was designed to investigate the relationship between back pain and fatal myocardial infarction. However, subjects reporting back pain during the year before study baseline had a significantly increased risk of committing suicide during the first 10 years of follow-up, when compared with subjects with no back pain symptoms. When adjusted for age, this finding remained significant. Based on these results, Penttinen called for more research to define the clinical character of back trouble, depression, and suicidal tendency.¹ The purpose of this letter is then to familiarize the readership with the current research status of this area of investigation.

There now is relatively strong evidence that pain patients are indeed at greater risk for completed suicide than patients without pain. The evidence is as follows. Patients with various medical conditions who complain of pain appear to be at increased risk for the presence of suicide ideation, suicide attempts, and completed suicide. For example, the vast majority of completed suicides in cancer patients occur among those patients with

inadequately controlled or poorly tolerated severe pain.² Similarly, suicide ideation in human immunodeficiency virus (HIV)-infected ambulatory patients was shown to be highly correlated with the presence of pain.² Patients with multiple sclerosis frequently complain of pain. These patients have a twofold increased suicide risk.³ Migraine headache sufferers also have been shown to be at increased risk for suicide attempts.⁴

It also seems that there is a high incidence of suicidal ideation among patients suffering from chronic nonmalignant pain. In a survey of members of a chronic nonmalignant pain self-help organization, 50% of the respondents reported that they had considered suicide.⁵ Chronic pain patients with "central" pain that is due to a lesion in the central nervous system also are at increased risk for suicide completion.⁶ Among chronic pain patients, the development of suicidal ideation is time-dependent. The longer the pain duration, the greater the likelihood for the presence of current suicidal ideation.⁷ Finally, in a pain facility study, Fishbain⁸ demonstrated that chronic pain patients' age-associated suicide completion rates were significantly greater than those of the general population and raised the issue of whether chronic pain was a suicide risk factor.

There is only one study that is at variance with the above data. Here, Stensman compared Uppsala, Sweden, suicide completers afflicted by various physical problems with the general Swedish population for prevalence of physical problems.⁹ Suicide completers with chronic benign pain were found not to be more prevalent in the suicide completer population than in the general Swedish population. However, this study was criticized for assuming that the age and sex distribution of the general population was identical to that of the suicide completer sample.¹⁰ Therefore, this study cannot be considered to add to the literature on the suicide rate of chronic pain patients.

The above data appear to indicate that chronic pain patients probably are not only at risk for suicidal ideation and suicide attempts but also their suicide completion rate is higher than that of the general population. Penttinen's "unexpected" results¹ are consistent with the above data. In a further analysis, Penttinen¹ could compare the suicide rate of Finnish farmers with back pain to that of the suicide rate of the general Finnish population as performed by Fishbain.⁸ Such an analysis could lead to a better

understanding of whether pain is a suicide risk factor.

A final issue is the question of the underlying reason(s) for the association of pain and suicide completion. Here, the strongest evidence relates to the association of pain and depression. The prevalence of depression has been demonstrated to be higher in chronic pain patients with nonmalignant pain vs non-chronic pain patients.¹¹ In addition, depression appears to share a unique variance with pain,¹² and more severe pain is associated with more severe depression.¹³ There also is some evidence that links pain, depression, and suicide. Here, Stenager¹⁴ found that suicide attempters complaining of pain were depressed more often than suicide attempters without pain. In addition, in a follow-up part of this study, a logistic regression analysis showed that painful somatic disease and depression independently predicted completed suicide. Consequently, each could be a suicide risk factor.

A diathesis-stress framework has been proposed to conceptualize the development of depression in chronic pain.¹⁵ However, it is still being debated as to whether depression is an antecedent or consequence of chronic pain.¹⁶ □

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